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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,922	10/31/2001	Meir Shinitzky	110598	3023

7590 06/04/2003

BROWDY AND NEIMARK  
624 NINTH STREET, N.W.  
WASHINGTON, DC 20001

EXAMINER
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WANG, SHENGJUN

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 06/04/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/936,922

Applicant(s)

SHINITZKY, MEIR

Examiner

Shengjun Wang

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 21-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 17-20, 25, 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

Receipt of applicants' amendments and remarks submitted March 13, 2003 is acknowledged.

1. Claims 7, and 21-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 12 submitted September 13, 2002.

#### ***Claim Rejections 35 U.S.C. 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recited a mental disorder is one of two subgenus: schizophrenia or dementia. Note the two subgenus herein claimed are not mutually exclusive. Particularly, schizophrenia is a dementia. The claim is indefinite as to the scope of each subgenus encompassed thereby, particularly, the scope of "dementia" encompassed thereby.

#### ***Claim Rejections 35 U.S.C. 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1617

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8, 17-20 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chun et al. (US 6,1250,345), in view of Piazza et al. (IDS, AA), Kobayashi et al. (IDS, AG-AJ).

6. Chun et al. teaches a method of promoting the survival of myelin producing cell, and treating neuro-disorders, including Alzheimer's disease, by employing LPA receptor agonist. See, particularly, column 5, lines 3-37; column 6, lines 37 bridging column 8, line 30.

Chun et al. does not teach expressly the employment of cyclic phosphate, e.g., acyl 1,2 glycerophosphate, or its homolog, for treating schizophrenia.

However, Piazza or Kobayashi et al. teaches that acyl 1,2 glycerophosphates are similarly useful as LPA, and are known to be useful for treating dementia. See, particularly, the abstract and column 2, lines 22 bridging column 4, line 6 in Piazza, and the abstracts of AI and AJ.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ acyl 1,2 cyclic phosphate, or its homologue, for treating schizophrenia, a form of dementia.

A person of ordinary skill in the art would have been motivated to remove employ acyl cyclic phosphate for treating schizophrenia, a form of dementia because acyl cyclic phosphate are known to be similarly useful as LPA, and are particularly useful for treating dementia. Agents known generally for treating neuro-disorders would have reasonably been expected to be useful for treating any neuro-disorders, including schizophrenia. The compounds employed herein read on homolog of acyl 1, 2 cyclic glycerolphosphate, e.g., Y is  $-(CH_2)_m-$ , wherein m is 1. One having

Art Unit: 1617

ordinary skill in the art would have been motivated to prepare the instantly claimed compound because such structurally homologous compounds are expected to possess similar properties. It has been held that compounds that are structurally homologous to prior art compounds are prima facie obvious, absent a showing of unexpected results. In re Hass, 60 USPQ 544 (CCPA 1944); In re Henze, 85 USPQ 261 (CCPA 1950).

***Allowable Subject Matters***

Method of employing 1,3 cyclic glycerophosphate for treating schizophrenia is allowable since prior art do not teach or fairly suggested the employment of 1,3 cyclic glycerophosphate for treating such disorder.

***Response to the Arguments***

Applicants' amendments and remarks submitted March 3, 2003 have been fully considered, but are not persuasive with respect to the rejections set forth above for reasons discussed below.

Applicants argue that the definition of "dementia" change from time to time, and for current definition, "dementia" does not encompass schizophrenia. The examiner disagrees. *Dementia is a structurally caused permanent or progressive decline in several dimensions of intellectual function that interferes substantially with the individual's normal social or economic activity.* (see page 1336, Merck Manual, of record), Schizophrenia (associated with neuro-degenerating, as elected herein) meet such requirements.

Applicants' amendments and arguments regarding the rejections under 35 U.S.C. 103 are moot in view of the new ground of rejections.

Art Unit: 1617

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Patent Examiner

**SHENGJUN WANG**  
**PATENT EXAMINER**

Shengjun Wang

May 21, 2003